

PATENT
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(A)_n-(Th)_m-(B)_o-(Target antigenic site)-X

or

(A)_n-(B)_o(Th)_m-(B)_o-(Target antigenic site)-X

or

(Target antigenic site)-(B)_o-(Th)_m-(A)_n-X

or

(Th)_m-(B)_o-(Target antigenic site)-(A)_n-X

wherein.

A is an amino acid or a general immunostimulatory sequence, where n is more than one, the individual A's may be the same or different;

A concld
B is selected from the group consisting of amino acids, -NHCH(X)CH₂SCH₂CO-, -NHCH(X)CH₂SCH₂CO(-N)Lys-, -NHCH(X)CH₂S-succinimidyl(-N)Lys, and -NHCH(X)CH₂S-(succinimidyl)-;

Th is an artificial helper T cell epitope selected from the group consisting of SEQ ID NOS:6-22, 105, 31-35 and an analog thereto;

"Target antigenic site" is selected from the group consisting of a B cell epitope, a peptide hapten, and a immunologically reactive analog thereof;

X is amino acid α -COOH or CONH₂,

n is from 1 to about 10;

m is from 1 to about 4; and

o is from 0 to about 10.

Q2

9. A peptide immunogen according to Claim 7 selected from the group consisting of SEQ ID NOS: 104, and 105.

Q3

11. A peptide immunogen according to Claim 10 selected from the group consisting of SEQ ID NOS:110 - 118, and 119.

13. A peptide immunogen according to Claim 12 selected from the group consisting of SEQ ID NOS:126 - 129, and 136 - 151.

group